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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,560	10/24/2003	Koji Horio	MIT-044-USA-P	7514
27955	7590	03/13/2006	EXAMINER	
TOWNSEND & BANTA c/o PORTFOLIO IP PO BOX 52050 MINNEAPOLIS, MN 55402			GOLDBERG, JEANINE ANNE	
			ART UNIT	PAPER NUMBER
			1634	

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/691,560

Applicant(s)

HORIO ET AL.

Examiner

Jeanine A. Goldberg

Art Unit

1634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the papers filed December 18, 2005. Currently, claims 1-45 are pending. Claims 1-13 have been withdrawn as drawn to non-elected subject matter.

Election/Restrictions

2. Applicant's election without traverse of Group II, Claims 14-25 in the paper filed December 19, 2005 is acknowledged.

The requirement is still deemed proper and is therefore made FINAL.

Priority

3. This application claims priority to Japanese application 2002-314333, filed October 29, 2002.

Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 119 as follows:

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on October 29, 2002. It is noted, however, that applicant has not filed a certified copy of the Japanese application as required by 35 U.S.C. 119(b).

Further, it is noted that a translation of the foreign document has not been received.

Drawings

4. The drawings are acceptable.

Claim Rejections - 35 USC § 112- Second Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 17-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A) Claims 17-18 are indefinite over the recitation "a very small pitch" because it is unclear what a very small pitch encompasses. The term "very small" in claim 17 is a relative term which renders the claim indefinite. The term "very small" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 14-18, 20-25 rejected under 35 U.S.C. 102(b) as being anticipated by Van Antwerp et al. (US Pat. 6,413,393, July 2, 2002).

A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim (see MPEP 2111.02).

Van Antwerp teaches an apparatus comprising cover, a base and a functional coating layer comprising a UV- absorbing polymer (abstract). Van Antwerp teaches the sensor includes a base layer, a cover layer and a sensor element disposed the base and the cover layers (i.e. a first and second board disposed in opposite of the front surface)(limitations of Claim 14, 15). The base and the cover are made of an insulative material such as a polyimide (col. 2, lines 65-67). The sensors comprise sensor elements which may have thin film conductors formed between an underlying insulative thin film base layer and an overlying insulative thin film cover layer (col. 8, lines 40-45). The sensor further comprises electrodes (i.e. heating means)(col. 8, lines 40-45).

A polished glass plate may be used for the upper surface. Alternative substrates include steel, aluminum, and plastic materials (col. 8, lines 55-65)(limitations of Claim 22).

Van Antwerp teaches useful UV-absorbing polymers including polytetramethylene ether glycol (PTMEG) (col. 5, lines 35-45). Van Antwerp teaches the amount of UV absorbing monomer polymers may be used to stiffer and more brittle polymers (col 7, lines 15-20). Van Antwerp teaches the layer is sufficiently UV-absorbing to permit the layer to be cut using a source of UV radiation such as a laser (col. 4, lines 40-45)(limitations of Claim 20). The UV absorbing polymer may be polymethacrylate (col. 11, lines 13-17)(limitations of Claim 18, 25).

As seen in Figure 2-3, the thin film has depressions and projections formed at a "very small pitch" (limitations of Claim 17). As noted above, "very small pitch" does not clearly indicate the meets and bounds of the claimed invention.

Therefore, Van Antwerp teaches every limitation of the claimed invention.

7. Claims 14-15, 17, 20-21, 23, 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Yasuda et al. (US Pat. 6,093,370, July 25, 2000).

A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim (see MPEP 2111.02).

Yasuda teaches an apparatus for polynucleotide separation method. As seen in Figure 3, the apparatus comprises a base and cover layer with a heating means (limitations of Claims 14, 15). Yasuda teaches the polynucleotide separation cell comprises an upper cell plate, a lower cell plate and electrodes for applying an electric

field (col. 9, lines 10-25). The temperature of the substrate can be controlled with the Peltier devices to allow temperatures of the chambers to be controlled (col. 9, lines 25-35)(limitations of Claim 21).

Yasuda teaches an infrared light emitted by the infrared laser source is reflected on the mirror (limitations of Claim 20). The thin film layer formed on the substrate absorbs infrared light to evolve heat and increase the temperature in the sample solution (col. 6, lines 1-15).

As seen in Figure 3, the substrate base is composed of electrically conductive film provided on the surface side and thermally conductive insulating substrate.

As seen in Figure 11, 21, the thin film has depressions and projections formed at a "very small pitch" (limitations of Claim 17). As noted above, "very small pitch" does not clearly indicate the meets and bounds of the claimed invention.

Conclusion

8. No claims allowable over the art.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Jeanine Goldberg whose telephone number is (571) 272-0743. The examiner can normally be reached Monday-Friday from 7:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla, can be reached on (571) 272-0735.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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The Central Fax Number for official correspondence is (571) 273-8300.

A handwritten signature in black ink, appearing to read "J. Goldberg".

Jeanine Goldberg

Primary Examiner

March 6, 2006